

# Health Information Technology Current & Future Initiatives

### PITAC Briefing

November 12, 2003

### "We have wonderful technology, but some grocery stores have better technology than our hospitals and clinics."

Secretary Tommy Thompson Chicago Medical School Commencement June 7, 2002



#### AHRQ: Networking and Information Technology Research and Development Efforts

|                     | FY 2003 Budget E   | stimates <b>ar</b>                                      | nd FY 2004  | Budget                       | Requests                                  | (dollars i                                       | n millions)                              |                 |
|---------------------|--|---|---|------------------------------|---|--|--|-----------------|
|                     | High End<br>Computing<br>Infrastructure<br>and<br>Applications | High End<br>Computing<br>Research<br>and<br>Development | Human<br>Computer<br>Interaction and<br>Information<br>Management | Large<br>Scale<br>Networking | Software<br>Design<br>and<br>Productivity | High<br>Confidence<br>Software<br>and<br>Systems | Social,<br>Economic,<br>and<br>Worldorce |                 |
| Agency              | (HEC I&A)  | (HEC R&D)   | (HCI & IM)  | (LSN)                        | (SDP)                                     | (HCSS)   | (SEW)                                    | Totals          |
| AHRQ<br><b>AHRQ</b> |  |   | 6.4<br><b>32.0</b>  | 5.2<br><b>25.0</b>           |   |  |  | 12<br><b>57</b> |



## How can we use Health Information Technology (HIT) to improve care?

- Tools to improve health care:
  - Electronic health records (EHR), e-prescribing, decision support, CPOE
- Share needed information
  - Connectivity and interoperability
- Organizational and financial systems
  - Bed flow, test result management



### **AHRQ's HIT Portfolio**

- Grant portfolio related to the development, evaluation and diffusion of HIT in diverse clinical settings
- Emphasis on the role of HIT in patient safety
  - Clinical Informatics to Promote Patient Safety (CLIPS)
- Historical HIT spending (grants and contracts):
  - FY01: \$18.4M
  - FY02: \$21.8M
  - FY03: \$11.6M



### **Building the Evidence Base for HIT**

- Electronic Health Records
  - Shared Online Health Records for Patient Safety and Care
- Clinical Decision Support
  - Automated Lab Test Follow-up to Reduce Medical Errors
- Electronic Prescribing
  - Error rates and prescribing practices in pediatric clinics
- Use of hand-held devices
  - Acceptance, benefits, and barriers in the use of hand-held decision support systems in ambulatory settings
- Consumer use of the Internet
  - Parent-Initiated Prevention Program



# AHRQ's Role in Departmental HIT Efforts (1)

- "One department" collaborations
  - Patient Safety Task Force (AHRQ, CMS, CDC, FDA) to reduce medical error reporting burden through centralized e-reporting
  - Public/private partnership on HIT and ambulatory safety initiatives (AHRQ, CMS, Leapfrog)
  - HIT and bioterrorism preparedness (AHRQ, OPHEP)



# AHRQ's Role in Departmental HIT Efforts (2)

- "One department" collaborations
  - Support for a new evidence report on the costs/benefits of HIT functionalities (AHRQ, ASPE, CMS)
  - Development of a EHR functional model through IOM/HL7 (AHRQ, VHA, CMS, ASPE)
  - Support for Indian Health Service EHR demonstration project (AHRQ, IHS, VHA)



### FY '04 President's Budget Request

#### Improving Health Care Quality and Safety

- The budget proposes \$84 million in AHRQ for patient safety activities to test and develop new interventions that may be reproducible across health care systems.
- \$62M dedicated to HIT efforts
  - \$50 million initiative to demonstrate hospital-based information technology solutions, including an emphasis on small community and rural hospitals.
  - Additional \$12M that will focus on clinical data standards (AHRQ & ASPE)



#### FY '04 HIT Investment

#### \$62M initiative:

- \$26 million: earmarked for implementing proven technologies in small and rural communities where HIT penetration has been low
- \$24 million: targeted for developing, implementing, and evaluating the use of new and innovative technologies to improve patient safety and quality of care in diverse health care settings.
- \$12M: targeted for clinical data standards and interoperability

## Determining the Need: HIT Expert Meeting

- Diverse array of 45 potential partners and stakeholders (including NAC)
  - Federal agencies:
    - HRSA, VHA, ASPE, CMS, CDC, FDA, IHS
  - Topical experts:
    - HIT, Patient Safety, Rural
  - Stakeholders
    - e.g., rural providers, community health center providers, rural clinic directors, clinicians, vendors

## HIT Expert Meeting: General Themes

- Financial and non-financial incentives to adopt HIT; Evaluate economics of HIT investment
- Develop business case for HIT
  - Educate public and policy makers
- Develop framework to assess value of specific features of HIT in diverse clinical settings
  - including workflow considerations
- Evaluate HIT systems currently in use to understand successes and shortcomings

## HIT Expert Meeting: General Themes

- Develop clinical knowledge for the public domain (e.g., decision support rules, knowledge library)
- Regional and community collaboratives
  - public/private partnerships
- Evaluate emerging technologies
  - including integration of admin and clinical systems
- Role of clinical data standards and interoperability (public health included)



### HIT Expert Meeting: Specific Rural Themes

- Issues are not really that different!!!
- Need to study and promulgate best practices
- Need for technical assistance in communities -- a rate-limiting step to HIT investment
- Partnership with ongoing programs at Office of Rural Health Policy (HRSA) to leverage investment
- Build collaboration and sustainability into programs
- Develop HIT toolkit for rural providers



## **Expert Meeting Results: Demonstrating HIT Solutions**

- \$50M Initiative
- Programs
  - Grants (soon to be released)
  - Health IT Resource Center
  - Indian Health Service RPMS
  - CMS AHRQ Collaboration



## Accelerate the Use and Adoption of Standards and Technology

- \$10M Initiative (AHRQ and ASPE)
- Areas of focus
  - Voluntary industry clinical messaging/terminology standards
  - National standard nomenclature for drugs and biological products
  - Comprehensive clinical terminology and nomenclature standard
  - Conduct research regarding activities to advance and accelerate the adoption of interoperable IT technology



#### **Future Direction**

- Expand on the direct quality and safety benefit from HIT
- Build on previous investment lessons learned from grantees
- Expanded collaboration with Federal partners (within and outside HHS)



## Secretary Thompson March 21, 2003

In the modern era, every century has had its major advance that has brought medical science another giant step forward. .... What will the major advance of the 21st century be?

I am convinced that the medical revolution of our children's lifetimes will be the application of information technology to health care.

# Health Technology Information

It's the Wave of the Future

